

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT 2-DEC-2004

To:

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POLOGNE

## WRITTEN OPINION (PCT Rule 66)

Date of mailing (day/month/year)	21.06.2004
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Applicant's or agent's file reference  
A/N-1010/901/961

REPLY DUE	within 3 month(s) from the above date of mailing
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International application No.  
PCT/PL 03/00040

International filing date (day/month/year)  
17.04.2003

Priority date (day/month/year)  
26.06.2002

International Patent Classification (IPC) or both national classification and IPC  
C30B9/00

Applicant  
AMMONO SP. Z.O.O.

1. This written opinion is the **second** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
  - I ☒ Basis of the opinion
  - II ☐ Priority
  - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV ☐ Lack of unity of invention
  - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI ☐ Certain documents cited
  - VII ☐ Certain defects in the international application
  - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.
 

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6.

**If no reply is filed,** the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 26.10.2004

Name and mailing address of the international preliminary examining authority:



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**I. Basis of the opinion**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

**Description, Pages**

1-28 as originally filed

**Claims, Numbers**

1-30 as originally filed

**Drawings, Sheets**

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	21-25
Inventive step (IS)	Claims	
Industrial applicability (IA)	Claims	

**2. Citations and explanations****see separate sheet**

**Re Item V**

***Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement***

Reference is made to the following document:

**D1: FR-A-2 796 657 (THOMSON CSF) 26 January 2001 (2001-01-26)**

Taking note of the fact that D1 does not teach a crystal growth process involving group I element azides as a mineralizer to assist the transport and growth process of gallium containing nitride monocrystals under supercritical conditions, novelty of the subject matter describing the process in claims 1-20 is recognised.

Concerning the independent "product" claim 21, independent "use" claim 22 and independent "product" claim 25 the following opinion is reached with regard to novelty.

The subject matter of "product" claim 21 defines a bulk gallium-containing nitride monocrystal as such without any characterizing features. Such a monocrystal cannot be considered a novel product since D1 (see claims 21,22) and other prior art teach also bulk gallium-containing nitride monocrystals.

Since it is implicit from D1 (see p.1, lines 4-13) that such monocrystals are used as substrates for epitaxial growth in device (e.g. LED's) fabrication, the subject matter of the "use" claims 22-24 is not novel with regard to the prior art.

Independent claim 25 is also drafted as a "product" claim as opposed to a "process" or "use" claim. The claimed "mineralizer" has only one technical feature and that is that it comprises one of the alkali metal azides. Since these are all known compounds (D1 discloses for example  $\text{NaN}_3$ ), the claimed mineralizer product *per se* cannot be considered as novel.

For these reasons, the subject matter of claims 21-25 lacks novelty and thus does not fulfill the requirements of Article 33(1) PCT in the sense of Article 33(2) PCT.

Concerning the subject matter of dependent claims 26-30, as well as the independent claim 25 to which they refer, it is noted that the requirements of Article 6 PCT are not met. In the light of the description and independent process claim 1, these claims do not clearly define the matter for which protection is sought.